AIR CONTENT
OF
FRESHLY MIXED CONCRETE
BY THE
VOLUMETRIC METHOD
AASHTO T 196

APPARATUS

[ ] Air Meter has a calibratoin within the last 3 months
[ ] Funnel
  [ ] Spout of a size permitting insertion through neck of top section
  [ ] Spout long enough to extend to a point just above bottom of top section
  [ ] Discharge end of spout so constructed that when water added to container there is minimum disturbance of concrete
[ ] Tamping Rod
  [ ] Round, straight 16 mm (0.625 in.) diameter rod
  [ ] Not less than approximately 300 mm (12 in.) in length
  [ ] Tamping end rounded to hemispherical tip with diameter of 16 mm (0.625 in.)
  [ ] Steel, high density polyethylene, or other plastic of equal or greater abrasion resistance
[ ] Strike-Off Bar
  [ ] Flat, straight bar of steel at least 3 mm (0.125 in.) thick by 20 mm (0.750 in.) wide by 300 mm (12 in.) long
  [ ] Flat, straight bar of high density polyethylene or other plastic of equal or greater abrasion resistance at least 6 mm (0.23 in.) thick by 20 mm (0.750 in.) wide by 300 mm (12 in.) long
[ ] Calibrated Cup, within 1.03 ± 0.04 percent of volume of bowl
[ ] Syringe, rubber bulb with a capacity at least that of the calibrated cup
[ ] Pouring Vessel, with capacity of approximately 1 L (1 qt)
[ ] Scoop, metal
[ ] Isopropyl Alcohol, 70 percent by volume
[ ] Mallet
  [ ] Rubber or rawhide head
  [ ] Mass of 570 ± 227 g (1.25 ± 0.5 lb)

PROCEDURE

[ ] Bowl filled in three layers of approximately equal depth using metal scoop
[ ] Each layer rodded 25 strokes with tamping rod
[ ] Bowl tapped 10 to 15 times with mallet after each layer is rodded
[ ] Top surface struck off with bar until surface is flush with top of bowl
[ ] Flange of bowl wiped clean
[ ] Top section attached, funnel inserted, and water added until it appears in the neck
[ ] Funnel removed and water added with rubber syringe until the bottom of the miniscus is level with zero mark
[ ] Cap attached and tightened

[ ] Meter inverted and agitated for a minimum of 45 seconds (meter not inverted for more than 5 seconds at a time)
[ ] Meter tilted approximately 45 degrees and vigorously rolled and rocked for approximately 1 minute, with neck elevated at all times
[ ] Meter set upright and allowed to stand until liquid level stabilizes by not changing more than 0.1 percent within 1 minute period
[ ] If liquid level obscured by foam, alcohol added by syringe in one calibrated cup increments to establish a readable liquid level
[ ] The number of calibrated cups of alcohol recorded, and liquid level read at bottom of miniscus to nearest 0.25 percent air
[ ] One minute rolling and rocking procedure repeated until two consecutive readings do not change by more than 0.25 percent air
[ ] Meter disassembled and contents examined to assure there are no portions of undisturbed, tightly packed concrete in base
[ ] If alcohol added to meter in one calibrated cup increments, the air content is calculated by adding the amount of alcohol to meter reading

NA - Not Applicable
X - Requires Corrective Action
√ - Satisfactory

_____
Acceptance Technician

_____ _____
Independent Assurance Technician Date

Comments _____

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